

Title (en)  
AL-BASED PLATED STEEL SHEET

Title (de)  
AUF AL-BASIS PLATTIERTES STAHLBLECH

Title (fr)  
TÔLE D'ACIER PLAQUÉE À BASE DE AL

Publication  
**EP 3608442 A4 20200909 (EN)**

Application  
**EP 18774246 A 20180323**

Priority  
• JP 2017061796 A 20170327  
• JP 2018011701 W 20180323

Abstract (en)  
[origin: US2020002818A1] An Al-plated steel sheet includes: a base; an Al-plating layer formed on at least one of opposite surfaces of the base; and a surface layer formed on the Al-plating layer, the surface layer containing: ZnO particles; an organic resin; and acetylacetonato in an amount in a range from 10 mass % to 30 mass %, both inclusive, with respect to a total mass of the surface layer. A mean particle size of the ZnO particles is in a range from 0.10  $\mu\text{m}$  to 5.00  $\mu\text{m}$ , both inclusive, and an amount of coating of the ZnO particles is in a range from 0.5 g/m<sup>2</sup> to 10.0 g/m<sup>2</sup>, both inclusive, in terms of metal Zn.

IPC 8 full level  
**C23C 28/00** (2006.01); **B32B 15/04** (2006.01)

CPC (source: EP KR US)  
**B05D 7/14** (2013.01 - KR); **B32B 15/04** (2013.01 - EP KR); **C08K 3/22** (2013.01 - KR); **C08K 5/07** (2013.01 - KR); **C08K 5/1575** (2013.01 - KR); **C09D 7/66** (2018.01 - KR); **C09D 175/04** (2013.01 - KR); **C22C 38/001** (2013.01 - EP KR US); **C22C 38/002** (2013.01 - EP KR US); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - EP KR US); **C22C 38/14** (2013.01 - EP KR US); **C23C 2/12** (2013.01 - KR US); **C23C 28/00** (2013.01 - EP KR US); **C23C 28/32** (2013.01 - EP); **C23C 28/321** (2013.01 - EP KR); **C23C 28/345** (2013.01 - EP KR); **B05D 2202/25** (2013.01 - KR); **C08K 2003/2296** (2013.01 - KR)

Citation (search report)  
• [I] US 2005025991 A1 20050203 - ISHIZUKA KIYOKAZU [JP], et al  
• [A] EP 2034050 A1 20090311 - NIPPON STEEL CORP [JP], et al  
• [I] CA 2987241 A1 20161208 - NIPPON STEEL & SUMITOMO METAL CORP [JP]  
• [A] US 2013101867 A1 20130425 - YUKINOBU MASAYA [JP], et al  
• [A] JP 2001355052 A 20011225 - NIPPON STEEL CORP  
• [A] JP 2013244696 A 20131209 - JFE STEEL CORP, et al  
• [AD] JP 2013221202 A 20131028 - NIPPON STEEL & SUMITOMO METAL CORP  
• [A] US 9428823 B2 20160830 - SHIBAO FUMIO [JP], et al  
• See also references of WO 2018180986A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**US 2020002818 A1 20200102**; BR 112019013298 A2 20191210; CA 3053102 A1 20181004; CN 110291226 A 20190927; EP 3608442 A1 20200212; EP 3608442 A4 20200909; JP 6424989 B1 20181121; JP WO2018180986 A1 20190404; KR 102269829 B1 20210629; KR 20190105063 A 20190911; MX 2019009703 A 20191002; RU 2019125494 A 20210428; RU 2019125494 A3 20210428; TW 201903165 A 20190116; TW I664299 B 20190701; WO 2018180986 A1 20181004; ZA 201905518 B 20200527

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